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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,691	03/23/2004	Parag P. Mehta	QN1094.US	2431

22145 KLEIN, O'NEILL & SINGH, LLP 43 CORPORATE PARK SUITE 204 IRVINE, CA 92606	7590 12/26/2007
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EXAMINER	
HUYNH, KIM T	

ART UNIT	PAPER NUMBER
2111	

MAIL DATE	DELIVERY MODE
12/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/806,691

Applicant(s)

MEHTA ET AL.

Examiner

Kim T. Huynh

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rengarajan (Pub. No. US 2005/0060452) in view of Nejedlo et al. (Pub. No. US 2004/0204912)

As per claims 1, 8, 15 Rengarajan discloses a PCI-Express slot (fig.1, 114) for coupling PCI-Express devices (fig.1, 106s) to a host system including a processor(fig.1, 108) the PCI-Express slot comprising:

a PCI-Express connector (fig.1, 114) configured to receive a card to couple at least two of the PCI-Express devices (fig.1, 106s)

wherein the PCI-Express slot is located on a motherboard of the host system(fig.1, 100) and the host system processor(fig.1, 108) communicated with the PCI-Express devices without using a bridge. (paragraph 13, and figure 1)

Rengarajan discloses all the limitations as above except using at least two independent sets of PCI-Express Lanes. However, Nejedlo discloses a PCI Express link comprised a multiple of lanes. Independent testing of the individual lanes within a link facilitates independent control of each PCI Express lane in a link. (paragraph 27 & 33)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Neiedlo's teaching into Rengarajan's system so as to show specific details of the PCI Express.

3. Claims 1-7, 9-14, 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rengarajan (Pub. No. US 2005/0060452) in view of Nejedlo et al. (Pub. No. US 2004/0204912) and further in view of Gonzalez et al. (Pub. No. US2005/0088445)

As per claims 2, 9, 16, the modified system of Rengarajan discloses all the Gonzalez discloses all the limitations as above except where four PCI-Express lanes are used to couple at least two PCI Express devices. However, Gonzalez discloses the motherboard supports at least 32 pci express lanes being routed into two x 16 or one x16 or one x8 or two x8 ... etc. (paragraph 28)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Gonzalez's teaching into the modified system of Rengarajan's system so as to provide a computer configured to effectuate the use of multiple, off-the-shelf video cards, working in parallel. (paragraph 5)

As per claims 3, 10, 17, Gonzalez discloses where eight PCI-Express lanes are used to couple at least two PCI Express devices. (paragraph 28)

As per claims 4, 11, 18, Gonzalez discloses where twelve PCI-Express lanes are

used to couple at least two PCI Express devices. (paragraph 28)

As per claims 5,12, 19, Gonzalez discloses where sixteen PCI-Express lanes are used to couple at least two PCI Express devices. (paragraph 28)

As per claims 6,13, 20, Gonzalez discloses where thirty two PCI-Express lanes are used to couple at least two PCI Express devices. (paragraph 28)

As per claims 7, 14, 21, Gonzalez discloses where .times.2, .times.4, .times.8, .times.12, .times.12, .times.16 or .times.32 PCI-Express lane configurations are used to couple at least two PCI Express devices. (paragraph 28)

### ***Response to Amendment***

4. Applicant's amendment filed on 10/17/07 have been fully considered but are moot in view of the new ground(s) of rejection.

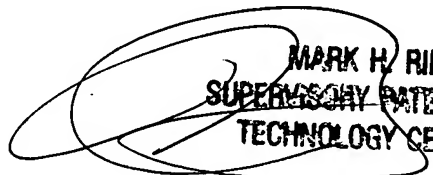
a. In response to applicant argument that Gonzalez does not disclose wherein the PCI-Express slot is located on a motherboard of the host system and the host system processor communicated with the PCI-Express devices without using a bridge. However, Rengarajan discloses requesters 106s access one or of shared resources 108 over system bus 114. Shared resource 108 include a processor, a central processing unit or other resource that shared by one or more requestors 106 over bus

114 (paragraph 13, and figure 1) Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov].

The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

 MARK H. RINEHART  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Kim Huynh  
Patent Examiner  
AU 2111

12/20/07